

## Claims

1. Sensor (12) for a short range detection or parking assistance system for a vehicle, in particular an ultrasound sensor having a pot-shaped housing (10) whose floor (14) is configured as a vibration membrane, wherein the housing has a coating on at least the outer side, characterized in that the coating is a weather resistant paintable powder coating (18) which does not impair the vibration performance of the membrane or does so to only a negligible extent.
2. Sensor (12) of claim 1, characterized in that the housing (10) is made from a metallic material and the powder coating (18) is disposed directly onto the metallic material.
3. Sensor (12) of claim 1 or 2, characterized in that the housing (10) is made from a metallic material, wherein an intermediate layer is disposed between the metallic material and the powder coating (18).
4. Sensor (12) of claim 2 or 3, characterized in that the metallic material is aluminum or an aluminum alloy.
5. Sensor (12) of claim 1, 2 or 3, characterized in that the powder coating (18) is manufactured from an acrylic powder, a polyester powder and/or from an epoxide powder.
6. Sensor (12) according to any one of the preceding claims, characterized in that the powder coating (18) has a dark color and in particular a black color.

7. Sensor (12) according to any one of the preceding claims, characterized in that the powder coating (18) is at least painted in sections.
8. Housing (10) for a sensor (12) according to any one of the preceding claims having a powder coating (18).
9. Method for the production of a sensor according to any one of the claims 1 through 6 or of a housing according to claim 7, characterized in that the housing (10) is powder coated to effect the coating (18).
10. Method for the production of a sensor according to claim 8, characterized in that the housing (10) is painted following the powder coating or constructed without further treatment.
11. Method for the production of a sensor according to claim 8 or 9, characterized in that the housing (10) is pretreated prior to the powder coating, in particular through the introduction of an immediate layer.